Brumberger QUEST
Innovation and Consulting Conference

2008 Conference Program & Projects Portfolio
QUEST WELCOMES

Alumni
Family & Friends
QUEST Partners
Students
University Colleagues

Consulting Project Clients:
Agilent Technologies
Baltimore City Public Schools
Bowles Fluidics Corporation
Constellation Energy
Keswick Multi-Care
Lockheed Martin Corporation
PricewaterhouseCoopers
SAIC
University of Maryland
    Facilities Management
    Small and Minority Business Programs
    Office of Sustainability
Winchester Homes
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Conference Program

Storyboard Display & Registration
(Grand Atrium)

Welcome
(Room 1524, the Frank Auditorium)

Student Presentation Breakout Sessions
(Please see the chart below)

Reception
(Grand Atrium)

Project of the Year Award
Project of the Year Presentation Encore
Closing
(Room 1524, the Frank Auditorium)

Student Presentation Breakout Sessions

Guests will progress to the student presentations from the welcome in the auditorium. Guests may attend presentations in any room. Time has been built into each session for guests to move to other rooms in-between presentations.

Student ushers are available for guests who are looking for specific rooms and presentations.

<table>
<thead>
<tr>
<th>Time</th>
<th>Room 1505</th>
<th>Room 1511</th>
<th>Room 1524</th>
<th>Room 1528</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30</td>
<td>Lockheed Martin</td>
<td>SAIC Cyber Portal</td>
<td>UMD Office of Sustainability and Facilities Management</td>
<td>Quality &amp; Design</td>
</tr>
<tr>
<td></td>
<td>Supply Chain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:45</td>
<td>Lockheed Martin</td>
<td>SAIC Event Forecasting</td>
<td>Ukrainian Youth Project</td>
<td>UMD Office of Sustainability</td>
</tr>
<tr>
<td></td>
<td>Inventory Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00</td>
<td>Keswick Multi-Care</td>
<td>UMD Small and Minority Business Programs</td>
<td>Bowles Fluidics Corporation</td>
<td>Constellation Energy</td>
</tr>
<tr>
<td>7:15</td>
<td>Pricewaterhouse-Coopers</td>
<td>Baltimore City Public Schools</td>
<td>Agilent Technologies</td>
<td>Winchester Homes</td>
</tr>
</tbody>
</table>

The reception will take place in the Grand Atrium following the breakout sessions at 7:30 p.m.
QUEST 2008 Consulting Project Advisors

**Dr. Ashok K. Agrawala**
Professor of Computer Science
College of Computer, Math and Physical Sciences
Professor Ashok K. Agrawala joined the University of Maryland in 1971 where he is Professor of Computer Science, and Affiliate Professor of Electrical Engineering. In 2001 he started the Maryland Information and Network Dynamics (MIND) Lab which works with industry in developing solutions to practical problems. He serves as the Director of the MIND Lab. The technologies developed at the MIND Lab have been the basis of several startup companies in Maryland. His current research interests are in wireless technologies, location determination technologies, operating systems, and Information dynamics. He has published seven books and over 200 technical papers.

**Professor David Ashley**
Adjunct Faculty, QUEST Honors Fellows Program
Robert H. Smith School of Business
David Ashley is a Program Analyst for the Department of Homeland Security. His duties involve procurement analysis, performance measurement and survey work, and program management for the DHS Office of Procurement Operations. On an ongoing basis, Mr. Ashley serves on the faculties of the University of Maryland and Johns Hopkins University whereby he teaches QUEST’s Innovation and Consulting Practicum, cross cultural research methods, marketing, and undergraduate and graduate marketing research courses. He is also the president of the Mid-Atlantic Chapter of the Marketing Research Association and holds an Expert Level Professional Research Certification from the Marketing Research Association. He has recently taught abroad in France covering topics in marketing and design integration. Finally, Professor Ashley has served as a contributor to various marketing, marketing research, and economic textbooks for Wiley Publishing.

**Dr. Henry C. Boyd III, Esq.**
Tyser Teaching Fellow of Marketing
Robert H. Smith School of Business
Hank Boyd joined University of Maryland in 2005. He is a Tyser Teaching Fellow in the Marketing Department at the Robert H. Smith School of Business. He is also a managing director and principal at Ombudsman LLC, a diversified consultancy. He is licensed to practice law in Wisconsin and the U.S. District Court, Western District of Wisconsin. Dr. Boyd received his Ph.D. in Marketing from Duke University and his J.D. in Intellectual Property from the University of Wisconsin-Madison. At the age of 24, he received his MBA in Marketing from the University of California at Berkeley. Dr. Boyd’s areas of expertise include biotechnology, consumer behavior, business consulting, pharmaceutical sales, advertising, and market research. His research has been published in Marketing Letters, Psychology & Marketing, and Journal of Advertising Research. Dr. Boyd has consulted with several firms including Verizo, SAIC, and Ocean Tomo.

**Nicole M. Cottrell, M.A.**
Program Manager, QUEST Honors Fellows Program
Robert H. Smith School of Business
Nicole Cottrell currently serves as program manager for the University of Maryland QUEST program. She establishes and maintains professional relationships for the program, manages the budget and donations, and is involved with curriculum development and execution. Previously, Nicole worked as policy analyst intern at the Joint National Committee on Languages and as a French teacher and administrator at independent schools in New York and Washington, DC. After graduating Phi Beta Kappa from the University of the South in 2001 with a B.A. in English and French, she earned an M.A. in French Studies from Middlebury College while living in Paris. She is currently working on the proposal for her dissertation in Education Policy Studies Ph.D. program here at Maryland.

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**QUEST 2008 Consulting Project Advisors, Continued**

**Dr. Charles W. Carr, Professional Engineer**  
**Technology Consultant, Maryland Technology Enterprise Institute**  
**A. James Clark School of Engineering**

Charles W. Carr, Professional Engineer, joins QUEST as a project advisor from the Maryland Technology Enterprise Institute. His analysis and design expertise includes applications of thermodynamics, special manufacturing methods, and high voltage power distribution systems. Mr. Carr's consulting experience includes serving as a senior management member of the Engineering Research Center. In this capacity he has provided services to clients regarding strategic planning and gap analysis, project management and scheduling, and lean manufacturing methods. Among Mr. Carr's professional accomplishments is a 1996 publication titled *Steam Transmission Line System Engineering, International District Heating Association Proceedings.*

**Dr. Thomas M. Corsi**  
**Michelle E. Smith Professor of Logistics and Co-Director, Supply Chain Management Center**  
**Robert H. Smith School of Business**

Dr. Thomas M. Corsi joined the Smith School in 1976 as a Professor of Logistics and Transportation. He is an associate editor of the *Logistics and Transportation Review* and serves on the editorial review board of the *Transportation Journal.* He has authored more than 100 articles on logistics and transportation. He has consulted for such organizations as the Interstate Commerce Commission, the Maryland State Department of Transportation, the National Science Foundation, the United States Department of Transportation, the National Truck Stop Operators, United Parcel Service, the United States Department of Energy, and the U.S. Army Logistics Agency. He has authored two books entitled: *The Economic Effects of Surface Freight Deregulation,* published in 1990 by the Brookings Institution in Washington, D.C., and *Logistics and the Extended Enterprise* (Benchmarks and Best Practices for the Manufacturing Professional), published in 1999 by John Wiley & Sons in New York City. In 2001, Dr. Corsi was appointed the Michelle E. Smith Professor of Logistics.

**Dr. Philip T. Evers**  
**Associate Professor of Logistics Management**  
**Robert H. Smith School of Business**

Dr. Philip T. Evers is an Associate Professor of Logistics Management in the Robert H. Smith School of Business at the University of Maryland. College Park. Joining the faculty at Maryland’s main campus in the fall of 1993, he received his B.S. in transportation and logistics from Tri-State University in 1987, his M.B.A. from the University of Notre Dame in 1988, and his Ph.D. in logistics management from the University of Minnesota in 1993. His primary research concentrates on exploring methods for achieving statistical economies of scale in logistics systems. Dr. Evers has had articles published in such journals as Computers and Operations Research, European Journal of Operational Research, Journal of Operations Management, Production and Inventory Management Journal, Transportation Research, Transportation Journal, International Journal of Logistics Management, and Journal of Business Logistics. He has worked on projects with Minnesota Mining and Manufacturing (3M), the Intermodal Association of North America, and with various major railroads.

**Dr. Jeffrey W. Herrmann**  
**Associate Director of QUEST and Associate Professor of Mechanical Engineering**  
**A. James Clark School of Engineering**

Jeffrey W. Herrmann is an associate professor at the University of Maryland, where he holds a joint appointment with the Department of Mechanical Engineering and the Institute for Systems Research. He is the director of the Computer Integrated Manufacturing Laboratory. Dr. Herrmann earned his B.S. in applied mathematics from Georgia Institute of Technology. As a National Science Foundation Graduate Research Fellow from 1990 to 1993, he received his Ph.D. in industrial and systems engineering from the University of Florida. His dissertation investigated production scheduling problems motivated by semiconductor manufacturing. He held a post-doctoral research position in the Institute for Systems Research from 1993 to 1995. His current research interests include emergency preparedness planning and response, health care operations, production scheduling, decision-making systems.
QUEST 2008 Consulting Project Advisors, Continued

**Dr. Hassan A. Ibrahim**
*Tyser Teaching Fellow of Information Systems*
*Robert H. Smith School of Business*

Dr. Hassan A. Ibrahim is a teaching professor who teaches courses in systems analysis and production management. Previously he taught at George Mason University and at Marymount College. Dr. Ibrahim’s research interest is management of technology; especially the strategic applications of information systems to supply chain management. His research was published by APICS’s Production and Inventory Control Journal and Harvard Business School. Ibrahim is on the editorial review board of the Journal of Operations Management. His primary teaching areas are: systems analysis and design, data communications, and operations management. He was nominated for the Outstanding Scholar of the Year Award in the Commonwealth of Virginia in 1996. He has worked for and consulted with a number of industry leaders including McDonnell Douglas, Phillips Electronics, and Siemens Medical Systems.

**Dr. David J. Lovell**
*Associate Professor of Civil and Environmental Engineering*
*A. James Clark School of Engineering*

David J. Lovell (Ph.D., University of California, Berkeley) is an Associate Professor in the Department of Civil and Environmental Engineering and the Institute for Systems Research in the A. James Clark School of Engineering. His research interests include improving air traffic control and air traffic management systems for the FAA and NASA, developing novel display technologies based on electrophoresis and retroreflectivity for the National Science Foundation, and developing wireless ad hoc network systems for vehicle-to-vehicle communications. He has been a Visiting Associate Professor at the Massachusetts Institute of Technology, and he is currently Associate Editor of the IEEE Transactions on Vehicular Technology.

**Dr. Gilvan “Gil” Souza**
*Associate Professor of Operations Management*
*Robert H. Smith School of Business*

Dr. Gilvan “Gil” Souza is an Associate Professor of Operations Management at the Robert H. Smith School of Business at the University of Maryland. He received his Ph.D. in operations management from the University of North Carolina at Chapel Hill in 2000, and his MBA from Clemson University in 1995. His primary research areas are in technology management, and supply chain management, including production planning, remanufacturing, reverse logistics, and closed-loop supply chain design. His research has been published in such journals as California Management Review, European Journal of Operational Research, Management Science, Manufacturing & Service Operations Management, and Production and Operations Management. He regularly works with such companies as HP, Pitney Bowes and Toshiba, primarily in production planning, and supply chain design. He is a popular teacher in the MBA program at the Smith School, recipient of the Krowe Teaching Award for teaching excellence in 2004.

**Dr. J. Gerald Suarez**
*Associate Dean of External Strategy*
*Executive Director of QUEST and Tyser Teaching Fellow and Executive Education Senior Fellow*
*Robert H. Smith School of Business*

Dr. J. Gerald Suarez is the Executive Director of the QUEST program, a Tyser Teaching Fellow and an Executive Education Senior Fellow at the Robert H. Smith School of Business. He is a recognized international lecturer, author, and consultant in systems thinking, as well as in organizational development, improvement, and redesign. Dr. Suarez worked for the Undersecretary of the Navy Total Quality Leadership Office serving as an advisor to the Atlantic Fleet. More recently, he worked for the White House heading up the Presidential Quality Management Office and serving as Director of Organizational Development. Dr. Suarez holds a Master’s Degree and a Ph.D. in Industrial/Organizational Psychology from the University of Puerto Rico.
LEARNING AND COLLABORATING

ABOUT QUEST
Quality Enhancement Systems and Teams (QUEST) is a multidisciplinary, reality-centered program for University of Maryland undergraduates from three participating schools. Students participate in a challenging course of study that focuses on innovation, quality systems management and teamwork and co-curricular programming aimed at bringing diverse knowledge, skill and perspective to enhance their professional and personal development.

WE AIM
“To engage our learning community with stimulating and dynamic reality-based learning experiences that challenge, prepare, enable, and inspire them to continually pursue and practice ethical ways to bring value to organizations and purpose and relevancy to their careers.”

- J. Gerald Suarez, Ph.D.
Executive Director

JOIN THE LEARNING COMMUNITY
QUEST partners are individuals and organizations which engage in and contribute to learning programs, projects and initiatives. Partners interact with the students, staff and faculty in a variety of forums resulting in value-added exchanges of knowledge and ideas. Partners are engaged in:

- Receiving consulting services
- Sponsoring Integrating QUEST (IQ) events, initiatives and visits to their organizations

QUEST partners gain exposure for recruiting students to internship, Co-op and full-time positions, and benefit from a heightened presence at the university level.

To get involved, please share your business card with a staff member or contact us at:

QUEST Honors Fellows Program
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College Park, MD 20742
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quest@rhsmith.umd.edu

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**Dr. J. Gerald Suarez**  
**Associate Dean of External Strategy**  
**Executive Director, QUEST Honors Fellows Program and Ralph J. Tyser Teaching Fellow**

J. Gerald Suarez was named Associate Dean of External Strategy for the Smith School in 2008. In this role, Suarez oversees Smith’s Offices of Career Management, Recruiting, and Marketing Communications. In 2005, he joined the Smith School as an Executive Education Senior Fellow, Ralph J. Tyser Teaching Fellow for the Decision, Operations and Information Technology Department and Executive Director of the Quality Enhancement Systems and Teams (QUEST) Honors Fellows program. In 2008 he received the prestigious Allen J. Krowe teaching excellence award. He has taught at the corporate, executive MBA, full-time MBA, international, and undergraduate levels and has served as academic director for executive on-site programs at Lockheed Martin Corporation and Scientific Applications International Corporation (SAIC).

Prior to joining the Smith School, Suarez served under two administrations in the White House as the Director of Presidential Quality -- the first such post in the institution’s history. In this capacity, he initiated efforts to inculcate systems thinking and organizational redesign into the White House Communications Agency, the White House Military Office and the Executive Office of the President of the United States. He also served as Director of Customer Support and Organizational Development for the White House Military Office. Suarez traveled aboard Air Force One and Presidential helicopters in numerous missions worldwide. He received many Presidential awards and commendations for his work, including the Exceptional Civilian Service Medal, the White House Distinguished Service Award, the Commander-in-Chief Coin, and the White House Certificate for Meritorious Service.

Prior to his White House assignments, he worked for the Office of the Under Secretary of the Navy’s Total Quality Leadership Office and for the Navy Personnel Research and Development Center in San Diego, California, where he served as a researcher, instructor and consultant for both the Department of the Navy and the Department of Defense (DoD).

Suarez has been active in the academic world in the United States and abroad. At the National Graduate School of Quality Systems Management, he led the development of the institution’s academic vision and served as Chief Academic Officer. For ten years, he was a Visiting Professor at the Asturias Business School in Spain and has represented the University of Maryland as a consultant and teacher in Shanghai and Tianjian, China. In 2006 he designed and delivered an accelerated MBA train-the-trainer program to a select team of faculty members of the Islamic University of Gaza in Cairo, Egypt.

Suarez has produced several publications and instructional videotapes on teamwork, organizational redesign and managing fear in the workplace. His work has been showcased in international publications such as the Harvard Deusto Business Review, as well as in national publications such as the Journal for Quality and Participation. Suarez holds a Master’s degree and a Ph.D. in Industrial-Organizational Psychology from the University of Puerto Rico. He is a frequent keynote speaker at national and international conferences.

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**Dr. Jeffrey W. Herrmann**  
**Associate Director, QUEST Honors Fellows Program and Associate Professor, Mechanical Engineering**

Jeffrey W. Herrmann is an associate professor at the University of Maryland, where he holds a joint appointment with the Department of Mechanical Engineering and the Institute for Systems Research. He is the director of the Computer Integrated Manufacturing Laboratory. He is a member of INFORMS, ASME, IIE, SME, and ASEE.

Dr. Herrmann earned his B.S. in applied mathematics from Georgia Institute of Technology. As a National Science Foundation Graduate Research Fellow from 1990 to 1993, he received his Ph.D. in industrial and systems engineering from the University of Florida. His dissertation investigated production scheduling problems motivated by semiconductor manufacturing. He held a post-doctoral research position in the Institute for Systems Research from 1993 to 1995.

Dr. Herrmann has led applied research projects supported by NSF, NIST, ONR, the Semiconductor Research Corporation, the U.S. Air Force, the U.S. Army Tank-Automotive Command, Lockheed Martin Missiles and Space, Harris Semiconductor, Northrop Grumman Electronic Sensors and Systems Division, Black & Decker, and other manufacturers in the state of Maryland. His publications cover topics in process planning, production scheduling, manufacturability evaluation, and manufacturing facility design. His current research interests include emergency preparedness planning and response, health care operations, production scheduling, decision-making systems.
QUEST Leadership, Continued

Rachel L. Cohen
Program Manager, Office of External Strategy and QUEST Honors Fellows Program
Rachel Cohen joined the Robert H. Smith School of Business, QUEST program in fall of 2005 as a staff member. She manages student affairs, recruitment and admissions, marketing and brand initiatives and Integrating QUEST programming. In August of 2008, Rachel joined the new Office External Strategy and is assisting in establishing the office.

Previously, Rachel worked in Volunteer Administration for the American Red Cross of Greater Los Angeles overseeing recruitment, training and retention processes for three offices and over 800 adult and youth volunteers. Rachel implemented best practices in volunteer administration and new volunteer orientation and training structures; elevated recognition efforts chapter wide; and spearheaded a strategic redesign of their volunteer administration website. Additionally, Rachel has worked for Nordstrom in Sales, Customer Service and Human Resources, and brings over six years of alternative education and summer camp programming to the youth and education field.

From 2007 - 2008 Rachel served on the Board of Directors for Habonim Dror Camp Moshava and played an instrumental role in restructuring board governance and designing transition plans, conducting general business, and supporting recruiting and fundraising efforts. Rachel holds a Bachelor’s Degree in Communication from the University of Maryland College Park and a Certificate in Nonprofit Management from Duke University.

Nicole M. Cottrell, M.A.
Program Manager, QUEST Honors Fellows Program
Nicole Cottrell currently serves as program manager for the University of Maryland QUEST program. She establishes and maintains professional relationships for the program, manages the budget and donations, and is involved with curriculum development and execution.

Previously, Nicole worked as policy analyst intern at the Joint National Committee on Languages and as a French teacher and administrator at independent schools in New York and Washington, DC. After graduating Phi Beta Kappa from the University of the South in 2001 with a B.A. in English and French, she earned an M.A. in French Studies from Middlebury College while living in Paris. She is currently working on the proposal for her dissertation in Education Policy Studies Ph.D. program here at Maryland.

Nicole’s research includes studying policy impacting higher education and foreign language education. In February of 2008, she presented an ethnography of students' cultural differences and their impact on teamwork at the 29th Ethnography in the Education Research Forum at the University of Pennsylvania.

David Ashley, M.B.A.
Adjunct Faculty, QUEST Honors Fellows Program
David Ashley is a Program Analyst for the Department of Homeland Security. His duties involve procurement analysis, performance measurement and survey work, as well as program management for the DHS Office of Procurement Operations. Before joining OPO, Mr. Ashley served as a Financial Resource Manager also within the Department of Homeland Security. His duties involved budget formulation, performance measurement and analysis, and strategic planning in support of U.S. Customs and Border Protection.

Previous to his DHS assignment, Ashley worked for the U.S. Small Business Administration where he led various marketing research endeavors including research studies with the SBA’s Office of Disaster Assistance and the SBA’s branding campaign and for several years served as the director of the Small Business Development Center at the University of New Mexico. While on the Valencia Campus, he oversaw the Center’s operation including formulating business and marketing plans for clients.

Ashley serves on the faculties of the University of Maryland and Johns Hopkins University teaching cross cultural research methods, QUEST’s Innovation and Consulting Practicum, marketing, and marketing research courses at the undergraduate and graduate level. Additionally, he serves on the board of the Marketing Research International Institute, has served on chambers of commerce boards, and has chaired the national programming committee for the Marketing Research Association. He is president of the Mid-Atlantic Chapter of the Marketing Research Association and has chaired the marketing course curriculum review committee for Johns Hopkins University during its accreditation review. He has recently taught in France on marketing and design integration. and has served as a contributor to various marketing, marketing research, and economic textbooks for Wiley Publishing.

He holds a bachelor’s degree from the University of North Carolina, an MBA from the University of New Mexico, and has successfully completed the Washington Campus Program at Georgetown University and the Hansard Scholars Programme for Parliamentary Government at the University of London. Finally, he holds a Professional Research’s Certification – Expert Level from the Marketing Research Association.
Special Thanks & Acknowledgements

QUEST would like to thank and acknowledge all of the individuals, committees and organizations who have contributed to helping honor and celebrate student achievement at this event.

Matthew Brumberger

Masters of Ceremonies
Kate Butt Thomasson
David Chesney

QUEST Students

QUEST Alumni

Family, Friends and University Colleagues

Consulting Project Advisors
Dr. Ashok K. Agrawala
Professor David Ashley
Dr. Henry C. Boyd III, Esq.
Dr. Charles W. Carr
Dr. Thomas M. Corsi
Nicole M. Cottrell
Dr. Philip T. Evers
Dr. Jeffrey W. Herrmann
Dr. Hassan A. Ibrahim
Dr. David J. Lovell
Dr. Gilvan “Gil” Souza
Dr. J. Gerald Suarez

Student Volunteer Committee
Suehyun Cho
Jill Clark
Jenna Cohen
Erika Elko
Liz Gardner
Mitch Kochman
Sandy Kwon
Jon Lau
Kelly Quinn
Caitlin Roller
Amanda Schreier
Olivia Schreier
Ben Suarez
Micheline Tocco
Abby Widom

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Joel Liebman
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Dr. J. Gerald Suarez

Consulting Project Clients
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Keswick Multi-Care
Lockheed Martin Corporation
PricewaterhouseCoopers
SAIC
University of Maryland:
Small and Minority Business Programs
Office of Sustainability and Facilities Management
Office of Sustainability
Winchester Homes

Project of the Year Panel
David Ashley
Rachel L. Cohen
Dr. Jeffrey W. Herrmann
Ronnie Petty
Matt Thomas
Cristina Stefanita
Dr. J. Gerald Suarez

Photography
Mike Morgan Photography
Suehyun Cho

Catering
Main Ingredient